BIMETAL OVERLOAD RELAYS
210070

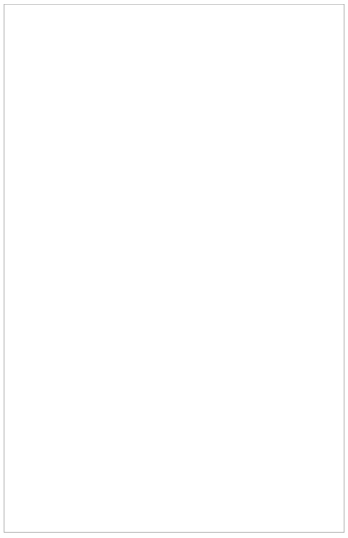


Photo is representative

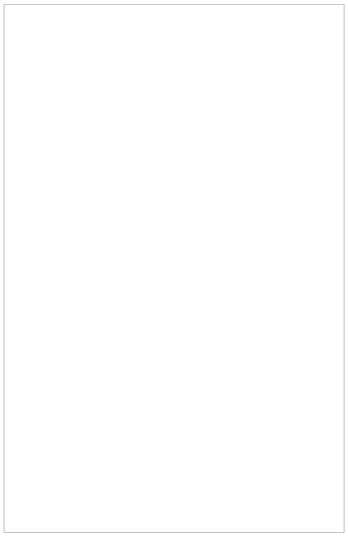


Photo is representative

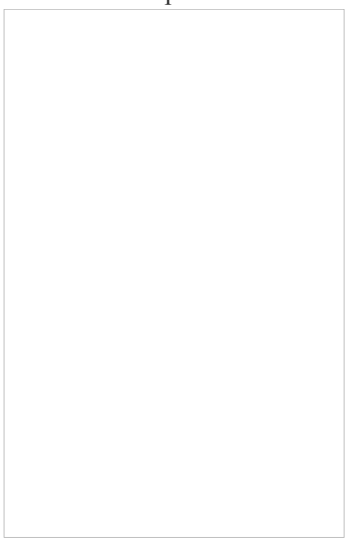
210070

Eaton Moeller® series Z5 Overload relay, Ir= 50 - 7
with: DILM250

How to buy

Photo is representative

Photo is representative



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Designed to work together

Discover other Eaton products and accessories built to enhance this product.

254834

Eaton Moeller® series M22 Release pushbutton, blue, Bezel: titanium, RESET

254833

Eaton Moeller® series M22 Release pushbutton, blue, Bezel: titanium

216423

Eaton Moeller® series M22 Button plate, flat red, blank

218153

Eaton Moeller® series M22 Butt flat red

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General specifications >

Product specifications >

GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller® series Z5 Thermal overload relay
CATALOG NUMBER	210070
MODEL CODE	Z5-70/FF250
EAN	4015082100704
PRODUCT LENGTH/DEPTH	146 mm
PRODUCT HEIGHT	167 mm
PRODUCT WIDTH	128 mm
PRODUCT WEIGHT	1.725 kg
CERTIFICATIONS	CSA File No.: 012528 UL CE CSA CSA Class No.: 3211-03 IEC/EN 60947 CSA-C22.2 No. 60947-4-1-14 UL File No.: E29184 UL Category Control No.: NKCR IEC/EN 60947-4-1 UL 60947-4-1 VDE 0660

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	70 A
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm², Control circuit cables 2 x (0.75 - 2.5) mm², Control circuit cables
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specificatio must be observed.
STRIPPING LENGTH (CONTROL CIRCUIT CABLE)	8 mm
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN	25 °C
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specificatio must be observed.
MOUNTING METHOD	Direct attachment Separate mounting Direct mounting
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX	40 °C
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
RESET FUNCTION	Automatic Push-button
SHORT-CIRCUIT CURRENT RATING (BASIC RATING)	250 A, max. Fuse, SCCR (UL/CSA) 250 A, max. CB, SCCR (UL/CSA) 10 kA, SCCR (UL/CSA)
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
SCREW SIZE	M3.5, Terminal screw, Control circuit cables M10 x 35, Terminal screw, Main connections
ADJUSTABLE CURRENT RANGE - MIN	50 A
TERMINAL CAPACITY (FLEXIBLE WITH CABLE LUG)	185 mm²
PROTECTION	With terminal cover, Protection against direct conta front (EN 50274)
AMBIENT OPERATING TEMPERATURE - MAX	60 °C
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
FEATURES	Phase-failure sensitivity (according to IEC/EN 6094 102) Test/off button Trip-free release Reset pushbutton manual/auto
STATIC HEAT DISSIPATION, NON-CURRENT-	

DEPENDENT PVS	0 W
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
VOLTAGE RATING - MAX	600 VAC
TERMINAL CAPACITY (BUSBAR)	25 mm width, Main connection
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
SAFE ISOLATION	240 V AC, Between auxiliary contacts, According t 440 V, Between auxiliary contacts and main contact 61140 500 V AC, Between main circuits, According to EN
RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V	1.5 A
CLASS	CLASS 10 A
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the inf instruction leaflet (IL) is observed.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	1
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to
RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V	0.9 A
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	7 W
PRODUCT CATEGORY	Overload relay Z5
OVERLOAD RELEASE CURRENT SETTING - MIN	50 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 60 V	0.75 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	21 W
HEAT DISSIPATION CAPACITY PDISS	0 W
SUITABLE FOR	Branch circuits, (UL/CSA)
TERMINAL CAPACITY (STRANDED WITH CABLE LUG)	185 mm²
TEMPERATURE COMPENSATION	≤ 0.25 %/K, residual error for T > 40° Continuous

TERMINAL CAPACITY (SOLID)	2 x (0.75 - 4) mm², Control circuit cables 1 x (0.75 - 4) mm², Control circuit cables
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	1
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
WIDTH ACROSS FLATS	16 mm (Hexagon head spanner SW)
RATED OPERATIONAL CURRENT (IE) AT DC-13, 220 V, 230 V	0.2 A
CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)	6 A
OVERLOAD RELEASE CURRENT SETTING - MAX	70 A
TERMINAL CAPACITY (SOLID/STRANDED AWG)	2 x (18 - 14), Control circuit cables 2/0 - 500 MCM, Main cables
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
DEGREE OF PROTECTION	IP00
OVERVOLTAGE CATEGORY	III
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
POLLUTION DEGREE	3
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8000 V AC 4000 V (auxiliary and control circuits)
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the devi
TIGHTENING TORQUE	18 Nm, Main cable connection screw/bolt 1.2 Nm, Screw terminals, Control circuit cables
ADJUSTABLE CURRENT RANGE - MAX	70 A
SCREWDRIVER SIZE	1 x 6 mm, Terminal screw, Control circuit cables, S 2, Terminal screw, Control circuit cables, Pozidriv
RATED OPERATIONAL CURRENT (IE) AT AC-15, 120 V	1.5 A
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
NUMBER OF CONTACTS (NORMALLY OPEN	1

CONTACTS)	
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, fuse, Without welding, Auxiliary 160 A gG/gL, Fuse, Type “2” coordination 250 A gG/gL, Fuse, Type “1” coordination
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	1
RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V	0.4 A
RATED OPERATIONAL VOLTAGE (UE) - MAX	1000 V
SHOCK RESISTANCE	10 g, Mechanical, Sinusoidal, Shock duration 10 m
RATED OPERATIONAL CURRENT (IE) AT DC-13, 24 V	0.9 A
SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY)	B300 at opposite polarity, AC operated (UL/CSA) R300, DC operated (UL/CSA) B600 at opposite polarity, AC operated (UL/CSA)

Catalogs

Characteristic curve

Declarations of conformity

Drawings

eCAD model

Installation instructions

Manuals and user guides

mCAD model

Wiring diagrams

210070

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